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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,658	06/10/2005	Mitsuhiro Miyazaki	272841US6PCT	7324
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER CHOE, YONG J	
			ART UNIT 2185	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/538,658

Applicant(s)

MIYAZAKI ET AL.

Examiner

YONG CHOE

Art Unit

2185

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS-06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The instant application having Application No. 10/538,658 has a total of 16 claims pending in the application. There are 4 independent claims (e.g., claim 1,13,14, and 17) and 12 dependent claims, all of which are ready for examination by the examiner.

Reopening of Prosecution After Appeal Brief or Reply Brief

2. In view of the Appeal Brief filed on 08/13/2009, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claim 14** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 14, the limitation "A computer readable medium" recited in claim 14 is not described in the applicant's original disclosure. Instead, the original disclosure describes a recording medium such as magnetic disk, optical disk, ROM and DVD (see page 61 of specification). For examination purpose, examiner will interpret the computer readable medium as a recording medium.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1-14, 16 and 17** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 13, 14 and 17, it is unclear whether said user preference information, generated by said generating means, recited in the last line of claims 1, 13, 14 and 17 is the one generated by (a) the first generating means (i.e., first

generating means for generating user preference information indicating preferences of a user based on the use frequency calculated by said calculating means) or (b) the second generating means (i.e., second generating means generating user preference information based on a normalized use frequency for each group). Examiner can understand from reading the applicant's specification that said user preference information recited in the last line of claims 1,13,14 and 17 is the one generated by (b) the second generating means, however one of ordinary person in the art may not understand from reading the claim itself. Therefore, examiner recommends that the applicants make the claim language clear.

Claims 2-12,16 are dependent on rejected base claim 1, and therefore inherit the deficiency thereof.

Response to Arguments

7. Applicant's arguments with respect to claims 1-14,16 and 17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1-3,13,14,16 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Saito et al. (US Publication No.: US 2001/0018685)** in view of **Hane et al. (US Publication No.: US 2002/0157096)** and in further view of **Kurapati (US Patent No.: US 7,581,237)**.

Regarding independent claims 1,13,14 and 17, Saito teaches an information processing apparatus comprising:

grouping means for organizing delivered contents into groups each constituted by the contents regarding a grouping item including at least one attribute item representative of a content attribute ([0007], lines 6-15: extraction means for extracting attribute information from an existing text file; selection means for selecting an important word from among words contained in the existing text file; acquisition means for acquiring the associated information related to the important word selected by the selection means; database construction means for constructing a database by use of at least one of the attribute information extracted by the extraction means and the associated information acquired by the acquisition means);

calculating means for calculating frequency of uses of the contents with respect to each of the group IDs ([0007], lines 15-19: event occurrence detection means for detecting the occurrence of the event; keyword detection means for detecting a keyword from the text file corresponding to the event detected by the event occurrence detection means);

generating means for generating user preference information indicating references of a user based on the use frequency calculated by said calculating means ([0007], lines 19-22: search means for searching the database constructed by the database construction means for the associated information corresponding to the keyword detected by the keyword detection means); and

recommending means for giving content recommendations based on said user preference information generated by said generating means ([0007], lines 22-24: display control means for controlling displaying of the associated information retrieved by the search means).

However, Saito does not specifically teach the contents are given the same group identification (ID) for having degrees of similarity higher than a predetermined value.

Hane teaches the contents are given the same group identification (ID) for having degrees of similarity higher than a predetermined value ([0017]-[0021]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the program-recommending system as taught by Hane into the information processing of Saito in order to recommend programs more flexibly and precisely to users which are unavailable to users. Therefore, it would have been obvious to combine the program-recommending system as taught by Hane with the information processing of Saito to obtain the invention.

Saito and Hane do not specifically teach said generating means generating user preference information based on a normalized use frequency for each group, said

normalized use frequency normalized based on use frequencies of all contents in each respective group delivered during a time period corresponding to a use history.

Kurapati teaches said generating means generating user preference information based on a normalized use frequency for each group, said normalized use frequency normalized based on use frequencies of all contents in each respective group delivered during a time period corresponding to a use history (see Fig.4 & col.5, lines 3-13: in order to facilitate the calculations performed by the program recommendation process 500, discussed below, the historical search database 400 optionally indicates a normalized frequency of usage term, N, in field 470. For example, the normalized score, N, indicated in field 470 can be obtained by performing a linear mapping of the actual frequency of usage term to a value between zero and one for each of the various attribute-value pairs associated with an attribute. In an exemplary embodiment, the normalization in the historical search database 400 includes a frequency of usage scale).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the historical search database including a normalized frequency of usage 470 as taught by Kurapati into the information processing of Saito as modified by Hane in order to effectively identify desirable television programs using the historical search database. Therefore, it would have been obvious to combine the historical search database including a normalized frequency of usage 470 as taught by Kurapati with the information processing of Saito as modified by Hane to obtain the invention.

Regarding claim 2, Hane teaches wherein the grouping attribute constituted by an attribute item indicating a broadcast time slot ([0025], lines 1-4: The EPG (Electronic Program Guide) data equivalent to an electronic television race card currently performed as data broadcasting by digital satellite multi-channel broadcast as information which shows the content of the television program in a text are used.) and;

Saito teaches the grouping attribute constituted by at least one other attribute item is established for said information processing apparatus; and wherein said grouping means organizes said delivered contents into groups by the established grouping attribute ([0007], lines 10-15: acquisition means for acquiring the associated information related to the important word selected by the selection means; database construction means for constructing a database by use of at least one of the attribute information extracted by the extraction means and the associated information acquired by the acquisition means).

Regarding claim 3, Hane teaches wherein the grouping item constituted by at least an attribute item indicating a broadcast time slot ([0025], lines 1-4: The EPG (Electronic Program Guide) data equivalent to an electronic television race card currently performed as data broadcasting by digital satellite multi-channel broadcast as information which shows the content of the television program in a text are used.) and;

Saito teaches the grouping item formed by other attribute items are established for said information processing apparatus; and wherein said grouping means organizes said delivered contents into groups by each of the established grouping items ([0007],

lines 10-15: acquisition means for acquiring the associated information related to the important word selected by the selection means; database construction means for constructing a database by use of at least one of the attribute information extracted by the extraction means and the associated information acquired by the acquisition means).

Regarding claim 16, Saito teaches wherein said recommending means recommends content for which the normalized use frequency exceeds a preference threshold ([0007], lines 6-9: extraction means for extracting attribute information from an existing text file; selection means for selecting an important word from among words contained in the existing text file).

10. **Claims 4-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Saito et al. (US Publication No.: US 2001/0018685)** in view of **Hane et al. (US Publication No.: US 2002/0157096)** and in further view of **Kurapati (US Patent No.: US 7,581,237)** and **Platt (US Patent No.: US 6,987,221)**.

Regarding claim 4, Saito teaches wherein said grouping means determines degrees of similarity between constituent items making up said grouping item based on results of the analysis. ([0007], lines 4-10: The user profile which shows the program which a user likes by two or more themes given to the numeric value by each is created. The theme dictionary in which the keyword was given to each of two or more of said themes is used. The classification according to theme which gives each of two or more themes a numeric value is performed about each of two or more programs, and it is

characterized by determining the program recommended from said user profile and the numeric value of two or more themes given to each of two or more programs).

However, Saito, Hane and Kurapati do not specifically teach wherein said grouping means morphologically analyzes constituent items making up said attribute item of said contents.

Platt teaches wherein said grouping means morphologically analyzes constituent items making up said attribute item of said contents (col.4, lines 51-54: The weights and metadata can be utilized by the media analyzer to generate a preference function which generally indicates desired characteristics of which a playlist should be generated for).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the auto playlist generation as taught by Platt into the information processing of Saito as modified by Hane and Kurapati in order to generate desirable data and remove undesirable data (see abstract). Therefore, it would have been obvious to combine the auto playlist generation as taught by Platt with the information processing of Saito as modified by Hane and Kurapati to obtain the invention.

Regarding claim 5, Platt teaches wherein said generating means does not utilize the use frequency of the group constituted by the contents failing to meet a predetermined condition when generating said user preference information (abstract: The playlist can be regenerated by adding desirable seed items to the playlist and removing media items from the playlist (e.g., undesirable seed items)).

Regarding claim 6, Platt teaches wherein said recommending means comprises: determining means for determining whether or not said use frequency calculated by said calculating means is higher than a predetermined set value; and setting means for setting a staple flag indicating that the recommended contents have been viewed frequently to said content recommendation information if said use frequency is found higher than said predetermined set value by said determining means (col.4, lines 57-67 and col.5, lines 1-5: The playlist generator 104 receives the preference function from the media analyzer 102 and generates a playlist. The playlist generator 104 also receives metadata for media items in the media collection from the media database 106 in order to generate the playlist. The playlist generator 104 computes a preference for the media items using the preference function and inserts media items having more than a threshold amount of similarity into the playlist. After computing the preferences and inserting the most preferred media items, the playlist is sorted according to the estimated user preference such that most preferred media items are located at the top or early in the playlist and least preferred media items are located at the bottom or at the end of the playlist. Additionally, the desirable seed item(s) are inherently preferable and are generally placed at the beginning or top of the playlist).

Regarding claim 7, Platt teaches wherein said generating means comprises extracting means for acquiring metadata about the contents constituting the groups of which said use frequency calculated by said calculating means is higher than a predetermined set value, said extracting means further extracting vectors representing an amount of characteristics of said metadata; and wherein said generating means

generates said user preference information based on said vectors extracted by said extracting means (col.4, lines 57-67 and col.5, lines 1-5: The playlist generator 104 receives the preference function from the media analyzer 102 and generates a playlist. The playlist generator 104 also receives metadata for media items in the media collection from the media database 106 in order to generate the playlist. The playlist generator 104 computes a preference for the media items using the preference function and inserts media items having more than a threshold amount of similarity into the playlist. After computing the preferences and inserting the most preferred media items, the playlist is sorted according to the estimated user preference such that most preferred media items are located at the top or early in the playlist and least preferred media items are located at the bottom or at the end of the playlist. Additionally, the desirable seed item(s) are inherently preferable and are generally placed at the beginning or top of the playlist).

Regarding claim 8, Platt teaches wherein said generating means comprises staple determining means for determining whether or not the contents constituting the groups of which said use frequency is found higher than said predetermined set value correspond to said content recommendation information to which is set a staple flag indicating that the recommended contents have been viewed frequently (col.4, lines 57-67 and col.5, lines 1-5: The playlist generator 104 receives the preference function from the media analyzer 102 and generates a playlist. The playlist generator 104 also receives metadata for media items in the media collection from the media database 106 in order to generate the playlist. The playlist generator 104 computes a preference for

the media items using the preference function and inserts media items having more than a threshold amount of similarity into the playlist. After computing the preferences and inserting the most preferred media items, the playlist is sorted according to the estimated user preference such that most preferred media items are located at the top or early in the playlist and least preferred media items are located at the bottom or at the end of the playlist. Additionally, the desirable seed item(s) are inherently preferable and are generally placed at the beginning or top of the playlist); and

wherein, if said staple determining means determines that said contents do not correspond to said content recommendation information carrying the set staple flag, then said extracting means acquires the metadata about said contents and extracts vectors representing an amount of characteristics of said metadata (abstract: The playlist can be regenerated by adding desirable seed items to the playlist and removing media items from the playlist (e.g., undesirable seed items)).

Regarding claim 9, Saito teaches wherein said user preference information is constituted by a plurality of attributes and by values representing degrees of importance of said attributes ([0007], lines 6-15: extraction means for extracting attribute information from an existing text file; selection means for selecting an important word from among words contained in the existing text file; acquisition means for acquiring the associated information related to the important word selected by the selection means).

Regarding claim 10, Platt teaches wherein said generating means comprises familiarity setting means for setting degrees of familiarity with said contents based on the use frequency calculated by said calculating means; and wherein said generating

means assigns weights to degrees of importance of said user preference information based on said degrees of familiarity (abstract: The playlist can be regenerated by adding desirable seed items to the playlist and removing media items from the playlist (e.g., undesirable seed items)).

Regarding claim 11, Saito teaches wherein said generating means comprises: searching means for searching for contents of which said use frequency is lower than a predetermined value on the basis of a history of uses of said contents; and special preference information generating means for generating special preference information based on metadata about the contents retrieved by said searching means ([0007], lines 19-22: search means for searching the database constructed by the database construction means for the associated information corresponding to the keyword detected by the keyword detection means).

Regarding claim 12, Saito teaches first extracting means for extracting vectors representing an amount of characteristics of either said user preference information or said special preference information ([0007], lines 6-9: extraction means for extracting attribute information from an existing text file; selection means for selecting an important word from among words contained in the existing text file);

second extracting means for acquiring metadata about the contents broadcast in a predetermined set time slot, and extracting vectors representing an amount of characteristics of said meta ([0007], lines 9-15: acquisition means for acquiring the associated information related to the important word selected by the selection means; database construction means for constructing a database by use of at least one of the

attribute information extracted by the extraction means and the associated information acquired by the acquisition means); and

calculating means for calculating degrees of similarity between the vectors extracted by said first extracting means and those extracted by said second extracting means; wherein said recommending means selects a predetermined set number of the vectors extracted by said second extracting means, said vectors being selected in descending order of said degrees of similarity ([0007], lines 15-19: event occurrence detection means for detecting the occurrence of the event; keyword detection means for detecting a keyword from the text file corresponding to the event detected by the event occurrence detection means), said

recommending means further giving content recommendations based on the metadata about the selected vectors ([0007], lines 22-24: display control means for controlling displaying of the associated information retrieved by the search means).

Conclusion

11. Any inquiry concerning this communication should be directed to **Yong Choe** at telephone number **571-270-1053** or email to **yong.choe@uspto.gov**. The examiner can normally be reached on M-F 9:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Sanjiv Shah** can be reached on **571-272-4098**. Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 whose telephone number is (571) 272-2100.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PMR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-irect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Yong Choe/
Examiner, Art Unit 2185

/Sanjiv Shah/
Supervisory Patent Examiner, Art Unit 2185